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Exploring Acceptable Alternatives to Psychotherapy for Distressed Clients in Integrated Primary Care

Paul N. Leandri

Antioch University, New England

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Running head: ALTERNATIVE TREATMENTS IN PRIMARY CARE

Exploring Acceptable Alternatives to Psychotherapy for
Distressed Clients in Integrated Primary Care

by

Paul N. Leandri

B.A. University of New Hampshire, 2010
M.S. Antioch University New England, 2013

DISSERTATION

Submitted in partial fulfillment of the requirements for the degree
of Doctor of Psychology in the Department of Clinical Psychology
at Antioch University New England, 2017

Keene, New Hampshire



Department of Clinical Psychology

DISSERTATION COMMITTEE PAGE

The undersigned have examined the dissertation entitled:

**EXPLORING ACCEPTABLE ALTERNATIVES TO PSYCHOTHERAPY
FOR DISTRESSED CLIENTS IN INTEGRATED PRIMARY CARE**

presented on May 5, 2017

by

Paul N. Leandri

Candidate for the degree of Doctor of Psychology

and hereby certify that it is accepted*.

Dissertation Committee Chairperson:
James Fauth, PhD

Dissertation Committee members:
Alexander Blount, EdD
Amanda Hitchings, PsyD

Accepted by the
Department of Clinical Psychology Chairperson
George Tremblay, PhD
on **5/5/17**

* Signatures are on file with the Registrar's Office at Antioch University New England.

Dedication

I dedicate my dissertation and all of the work that went into this project to my father, Richard Rudy Leandri. I would not be the person I am today if it wasn't for you. You taught me to work hard, to never give up, and to aspire to do what makes me happy. Perhaps the most valuable lesson you taught me was that the most important thing in life is not what you do, but who you are, and who you strive to be. I love you, dad. You have been the greatest father I could ever ask for.

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Abstract

Integrated Primary Care (IPC) is an effective, cutting-edge modality to treating both physiological and psychological problems using a holistic approach within primary care. One of the primary challenges associated with IPC is figuring out the most cost-effective way of treating the largest possible number of patients with behavioral health-related conditions, within staffing constraints. This has led to a preference for time-limited psychological interventions that work well for common mild behavioral health conditions. These time-limited interventions, however, are often inadequate for patients struggling with moderate to severe psychological distress. As such, we need alternative treatment options for this population. Research has identified a number of alternative treatments as effective and potentially viable in primary care. Yet, we know little about the degree to which those potential alternative treatments would be utilized by primary care patients. This study investigated the acceptability of a number of alternative treatment options to primary care patients. Individual exercise was universally rated as the most acceptable alternative treatment option. Multivariate analyses indicated that DHK/CMC participants rated the group exercise intervention significantly higher than BFHC participants, and that female participants rated the group exercise and group yoga interventions significantly higher than their male counterparts. These analyses suggest that females and DHK/CMC participants are more likely to participate in group-based alternative options. Overall, the results suggest that both individual exercise and individual yoga programs were the most highly rated, and may represent viable options.

Keywords: alternative treatments, integrated primary care, IPC, exercise, yoga, meditation, self-management, peer support

Exploring Acceptable Alternatives to Psychotherapy for Distressed Clients in Integrated Primary Care

Integrated Primary Care Infuses Behavioral Health Expertise into Primary Care

Integrated primary care (IPC), also referred to as primary care behavioral health (PCBH) or collaborative care, infuses behavioral health care into primary care settings (Robinson & Reiter, 2007). Primary Care is the provision of health care services by clinicians who address a wide range of individual health care needs, developing an ongoing partnership with patients while practicing in the context of family and community (Institute of Medicine, 1996). The integration of behavioral health into the primary care treatment process involves the presence of a specialized clinician known as a behavioral health consultant (BHC). The BHC works with the rest of the primary care team (typically comprised of physicians, nurses, pharmacists, and other clinicians) to enhance both preventive and clinical care for behavioral health (i.e., depression, anxiety, substance abuse/dependence, occupational problems) issues. The BHC may also offer support and consultation for physicians and other clinicians regarding behavioral health issues that present in the primary care setting (Gatchel & Oordt, 2003).

Blount (1998) defined IPC as:

A service that combines medical and behavioral health services to more fully address the spectrum of problems that patients bring to their primary medical care providers. ...By teaming mental health and medical providers, IPC is the structural realization of the biopsychosocial model (Engel, 1977) advocated so broadly in family medicine. It is the reunification in practice of mind and body usually represented in the separate worlds of medical and mental health treatment. (p. 1)

Having a BHC working alongside the Primary Care Provider (PCP) allows the PCP to consult with the BHC as necessary regarding behavioral health concerns or refer patients in need of behavioral services. Integrating a BHC into a primary care clinic also helps to reduce the amount of time that the PCP is required to spend on behavioral health issues, thereby enabling the PCP to allocate more time to medical issues (Robinson & Reiter, 2007).

Often, the PCP introduces patients to the BHC who are seeking behavioral health services or who are referred to the BHC due to behavioral health concerns identified by the PCP. The BHC then typically remains in communication with the PCP after the initial session. BHCs, PCPs, and other healthcare providers share client records and notes through electronic medical records (EMRs), also referred to as electronic health records (EHRs; Robinson & Reiter, 2007).

One of the primary goals of the IPC model is to develop a cohesive team of providers who are able to work together to provide more accessible, higher quality care than might be found in a less unified system (Kodner & Spreeuwenberg 2002). As indicated by the Institute of Medicine (2006), "...healthcare for general, mental, and substance use problems and illnesses must be delivered with an understanding of the inherent interactions between the mind/brain and the rest of the body" (p. 373). The enhanced level of communication between providers using the IPC model helps to facilitate such an understanding among providers (Gruttadaro & Markey, 2011).

The IPC model is advantageous in that it promotes clinicians' consistent communication with one another about their patients and their treatment process (Gatchel & Oordt, 2003). When an IPC system works well, the different parts that comprise it (PCP, BHC, Behavioral Health Assistant [BHA], administrative team, psychiatrist, nursing staff, etc.) play complementary roles in order to achieve their common goal, to provide the best possible care for their patients

(Robinson & Reiter, 2007).

There is Great Need for Integrated Primary Care

Historically, providers of different disciplines have delivered physical and behavioral health treatment services in separate clinics, often with limited or no communication. This kind of fragmentation of physical and behavioral health services is often costly, can lead to frustration for both patients and providers, and may hinder treatment outcomes for patients (National Alliance on Mental Illness, 2011).

Blount et al. (2007) reported that the majority of primary care visits are related to behavioral health, but not necessarily labeled as such by the patient. This study found that individuals with psychological disorders are significantly more likely to visit a physician for concerns about a physical complaint than individuals without psychological disorders. As many as 70% of primary care appointments are behavioral-health implicated (Blount et al., 2007). Because of this, PCPs are the most common providers of behavioral health services and prescribe the majority of psychiatric medications in the US (Robinson & Reiter, 2006). Research indicates that PCPs provide behavioral health treatment to 25% of individuals diagnosed with behavioral health problems. However, it has been found that approximately half of all behavioral health issues go undetected, suggesting that PCPs generally under-diagnose psychiatric conditions. The IPC model serves to enhance providers' ability to detect and treat these behavioral health issues (US Department of Health & Human Services, 2001).

The need for IPC services applies to both adult and child/adolescent patients. Based on a recommendation by the US Surgeon General (US Department of Health and Human Services, 1999) stating that pediatric care needed to expand its scope to address behavioral health care, Van Cleve, Hawkins-Walsh, and Shafer (2013) conducted a review addressing the need for

pediatric behavioral health intervention. Their findings indicated that a significant proportion of child and adolescent patients are in need of behavioral health services but face barriers to accessing these services (Boyle et al., 2011; Committee on Health Care Access and Economics Task Force on Mental Health, American Academy of Child and Adolescent Psychiatry, 2009; Kataoka, Zhang, & Wells, 2002). This review also highlighted the increasing frustration with the limitations of treating physical and behavioral health as separate domains in primary care (US Department of Health and Human Services, 1999). The IPC model increases access for patients, reduces barriers, and offers a resolution to the traditional separation of behavioral and physical health services (Van Cleve et al., 2013).

Integrated Primary Care is Efficacious

A substantial body of meta-analytic and clinical trial research indicates that IPC systems can improve healthcare quality, efficiency, and outcomes, and can also reduce costs (Dickinson et al., 2005; McFeature & Pierce, 2012; Price, Beck, Nimmer, & Bensen, 2000; Rost, Pyne, Dickinson, & LoSasso, 2005; Woltmann et al., 2012). Several meta-analyses and large-scale randomized clinical trials have shown that IPC can lead to significant improvements in patients with behavioral health problems (Archer et al., 2012; Bower, Rowland, & Hardy, 2003; Butler et al., 2008; Davis et al., 2011; Gilbody, Bower, Fletcher, Richards, & Sutton, 2006; McFeature & Pierce, 2012; Price et al., 2000; Woltmann et al., 2012). Research indicates that IPC can be efficacious for substance abuse (Butler et al., 2008), depression (Archer et al., 2012; Gilbody et al., 2006), anxiety (Price et al., 2000), and co-morbid physical and psychiatric illness (Davis et al., 2011). For instance, a recent study conducted by Johnson et al. (2014) found that patients with Type 2 diabetes, who screened positively for depressive symptoms, reported a significantly greater reduction in depressive symptoms after receiving an IPC-based intervention, when

compared with a control group who received only care as usual from their primary care provider.

The evidence also supports the cost-effectiveness of IPC (Dickinson et al., 2005; Pirraglia, Rosen, Hermann, Olchanski, & Neumann, 2004; Rost et al., 2005). A study conducted by Rost et al. (2005) found evidence of good cost utility; the increase in Quality of Adjusted Life Years (QALYs) associated with IPC was on par with, or better than, other well established healthcare interventions, such as smoking cessation counseling, hypertension pharmacotherapy, hypercholesterolemia pharmacotherapy, chronic obstructive pulmonary disease rehabilitation, or depression screening alone. Another study, conducted by Pirraglia et al. (2004) also found the cost-effectiveness of IPC to be comparable to other widely accepted healthcare interventions. Dickinson et al. (2005) found that IPC decreased outpatient costs for depressed patients complaining of psychological symptoms in a primary care setting. Several other studies have also found IPC to result in cost-savings over time (Gilbody, Bower, & Whitty, 2006; Simon, Katon et al. 2001; Simon, Manning et al., 2001).

Despite Barriers to Diffusion, IPC Continues to Grow

IPC is becoming more popular throughout the United States, but there are still barriers to implementation. Kathol, Butler, McAlpine, and Kane (2010) found the most significant barriers to successful implementation to be financially based. Financial barriers included problems with coding and billing, confusion about whether to bill medical or behavioral payers, insurance nonpayment for same day medical and behavioral treatment encounters, and low payment rates for behavioral services delivered within a medical setting. Almost every site involved in this study identified the reimbursement system as a significant obstacle to sustaining IPC services. This study also identified a number of other common barriers to implementation. These included inadequate time/resources to support organizational changes involved in implementing an IPC

program, sharing limited space, forming interdisciplinary relationships, and educating other providers about behavioral services. Additionally, clinicians were less likely to participate in an IPC program if only some of their patients would receive IPC services. A final unexpected barrier to IPC implementation was finding behavioral health providers trained and willing to adapt practice procedures to the primary care setting (Kathol et al., 2010).

Zimmerman et al. (2001) found that physicians and behavioral health providers face the challenge of being trained in distinct fields, typically with minimal exposure to the training and perspectives of their counterparts. Similarly, differing philosophies and approaches to care can make it difficult for providers from different backgrounds to appropriately understand and utilize services provided by the other (Zimmerman et al., 2001). Other research has found lacking comprehensiveness of interventions to be a significant barrier to implementation, indicating greater challenges for programs that did not include a structured patient follow-up program managed by a data tracking system (Simon, Von Korff, Rutter, & Wagner, 2000; Wagner, Austin, & Von Korff, 1996).

In spite of systemic barriers, there has been a steady increase in the rate of implementation of the IPC model since the 1980s due to its proven efficacy and potential cost benefits. Each year this rate of implementation continues to grow. As of 2009, there were over 100 IPC model health systems operating within the United States, serving an estimated 40 million Americans. These systems are especially common in the West and upper Midwest (Enthoven, 2009).

IPC is Most Appropriate for Mild to Moderate Behavioral Health Problems

The oft-cited four-quadrant model of integrated clinical care indicates that individuals with low to moderate behavioral health distress should be treated within the IPC setting, whereas

individuals with severe behavioral health distress should be referred to specialty behavioral health (Mauer & Druss, 2009). Consistent with that claim, Krahn et al. (2006) found that IPC achieved comparable outcomes to enhanced specialty referrals for mild forms of depression, but was inferior to an enhanced referral to specialty mental health care for more severely depressed patients. Even though 71% of participants in the IPC group attended an appointment with a behavioral health provider, while only 49% of participants in the enhanced specialty referral group attended a behavioral health appointment, enhanced specialty referral still achieved significantly improved treatment outcomes for severely depressed patients. IPC interventions may be less effective for severely distressed patients because they are lower intensity than the interventions delivered in specialty mental health settings, which may be required for treating severely distressed patients effectively (Krahn et al., 2006).

Patients Most Likely to Benefit from IPC May be Least Likely to Receive It

Although research indicates that implementation of the IPC model has the potential to improve quality and efficiency of care, improve outcomes, and reduce cost (Enthoven, 2009) for patients with mild to moderate behavioral health conditions, in practice, physicians may be more likely to refer the most distressed patients for behavioral health services in IPC settings (Fauth & Tremblay, 2011). Fauth and Tremblay conducted a pilot study that explored the allocation of IPC care for adult patients with diabetes in naturalistic settings. They found that the level of emotional distress present in these primary care settings exceeded the IPC behavioral health resources available to treat it, and that pharmacological treatment provided by PCPs alone was the dominant form of behavioral health treatment. The study also revealed that most of the co-located behavioral health services were allocated to the most severely distressed patients, rather than the patients with mild to moderate distress, who were most likely to benefit from it.

Perhaps if alternative options that required less BHC time were available for the most distressed patients, BHCs could focus more of their time on less severely distressed patients.

Alternative Treatment Options for Severely Distressed Clients in IPC settings

Alternative treatment options for severely distressed patients that place lower or no demands on BHCs could help open the door to increased treatment of patients with mild to moderate forms of distress in IPC settings. This study focuses on alternative treatment options rather than enhanced referral to specialty mental health services (SMH), due to the high number of patients that are either unwilling or unable to utilize SMH services (Baker & Menken, 2001; Kessler et al., 2001; Pincus, Hough, Houtsinger, Rollman, & Frank, 2003; Scholle, Haskett, Hanusa, Pincus, & Kupfer, 2003; Thomas, Ellis, Konrad, Holzer, & Morrissey, 2009; Williams, Palmes, Kurt, Pulley, & Meschan, 2005). Research has shown that difficulties accessing care and low SMH treatment initiation rates among patients pose a significant barrier to the effectiveness of such referrals (Pincus et al., 2003). In fact, SMH initiation rates are less than 50% (Scholle et al., 2003; Williams et al., 2005). Other barriers to SMH access include patients' perceptions of the stigma associated with the term mental disorder, having limited or no insurance, lacking awareness about where to find help, limited time or the belief that SMH treatment would be inconvenient, or perceptions of lacking treatment effectiveness (Baker & Menken, 2001; Kessler et al., 2001). A final barrier to utilization of SMH services is the severe shortage of behavioral health providers throughout the United States (Thomas et al., 2009). Providing alternatives to the traditional treatment options (psychopharmacology and psychotherapy) and referral to SMH would also allow for greater expression of choice and preference for all patients with behavioral health needs.

The following potential alternative interventions were selected due to their superior reach

and cost characteristics, relative to individual services provided by a trained PCP or BHC. Specifically, this study focuses on the potential of alternative interventions that can be implemented with no (exercise, yoga, mindfulness) or less BHC time/resource than traditional, individual IPC interventions (e.g., brief psychotherapy), and yet may be able to provide significant benefits.

Exercise. A substantial body of research indicates that exercise can be a highly effective treatment for psychological distress such as depression and anxiety (Calfas & Taylor, 1994; Kugler, Seelbach, & Kruskemper, 1994; Landers & Petruzzello, 1994; Long & Van Stavel, 1995; McDonald & Hodgdon, 1991; Petruzzello, Landers, Hatfield, Kubitz, & Salazar, 1991; Pollock, 2001; Rethorst, Wipfli, & Landers, 2009; Schlicht, 1994; Wipfli, Rethorst, & Landers, 2008). In fact, some researchers have suggested that if the evidence for the efficacy of exercise continues to grow, it may become a first-line treatment of choice for behavioral health conditions (Moore & Blumenthal, 1998).

A meta-analysis of 49 randomized trials conducted by Wipfli et al. (2008) found that exercise significantly improved anxiety symptoms, and provided very strong evidence supporting the use of exercise as a treatment for anxiety disorders. The same meta-analytic review found that exercise is as effective as psychotherapy and nearly as effective as pharmacotherapy, the two leading treatment options for anxiety, currently. Only randomized, controlled studies that included a self-report measure of anxiety as a dependent variable, and an exercise condition that did not include another form of treatment, were included in the meta-analysis. This review included individuals of all ages, genders, and socio-economic backgrounds. A dose-response analysis found that the magnitude of effect increased as the treatment dose approached 12.5 kilocalories per kilogram of bodyweight per week, and

decreased as exercise dose increased beyond this (Wipfli et al., 2008).

A similar meta-analysis, conducted by Rethorst et al. (2009), found very strong evidence supporting the use of exercise as a treatment for depression. This review included analysis of 58 randomized trials, including nearly 3,000 participants. This meta-analysis only included randomized controlled trials that used some type of moderate to vigorous exercise as a treatment condition, and that measured depression as a dependent variable. This study found no difference between the treatment effectiveness of exercise, psychotherapy, and pharmacotherapy, for depression. The effects of interventions lasting 4-9 weeks and 10-16 weeks resulted in significantly larger effects than interventions lasting 17-26 weeks. Within the clinically depressed population, it was found that interventions lasting 10-16 weeks resulted in significantly larger effects than interventions lasting 4-9 weeks. A regimen of combined aerobic and resistance exercise resulted in significantly larger effects than aerobic or resistance exercise regimens alone. No significant differences were found between exercise types among the clinical population. Within the overall population, exercise bout durations of 20-29 minutes resulted in significantly larger effects than bouts of 45-59 minutes and greater than 60 minutes. Within the clinical population, bouts of 45-59 minutes resulted in a significantly larger effect size than bouts of 30-44 minutes, and greater than 60 minutes Rethorst et al. (2009).

An individual study conducted by Babyak et al. (2000) found that exercise is at least as efficacious as SSRI antidepressant medication at reducing symptoms of depression, and more effective than an SSRI at preventing remission. This study assessed depression symptoms among 156 older adult patients (age 50+) with Major Depressive Disorder (MDD) under three different treatment conditions: aerobic exercise, SSRI (sertraline) pharmacotherapy, or a combination of sertraline and exercise. The exercise regimen was 10 minutes of warm-up followed by 30

minutes continuous cardio, concluding with a 5-minute cool down. Assessments were performed at baseline, after four months, and six months after treatment completion (i.e., 10 months after start of study). Results indicated that after four months, patients from all three treatment groups exhibited similar improvements in reported depressive symptoms. All three treatment groups again showed similar improvements in reported depressive symptoms after 10 months; however, among participants meeting criteria for Major Depressive Disorder (MDD), the exercise only treatment group exhibited lower rates of depression than both the medication and combined exercise and medication groups. Additionally, exercising on one's own post-treatment was associated with a reduced probability of MDD diagnosis at the end of the study period. The authors concluded that exercise is a feasible treatment option with significant therapeutic benefit for individuals with MDD, especially if exercise is maintained over time (Babyak et al., 2000).

A recent uncontrolled study conducted at Rutgers University found that participation in a treatment program involving a combination of mental and physical training (MAP Training Intervention) significantly reduced depressive symptoms among a college-aged sample of both typical healthy individuals and individuals diagnosed with major depressive disorder. This training program integrated mental training through meditation, and physical training through aerobic exercise. This program included 20 minutes of sitting meditation, followed by 10 minutes of slow walking meditation, then 30 minutes of moderate intensity aerobic exercise, concluding with a 5 minute cool down period. These sessions occurred twice per week for 8 weeks (Alderman, Olson, Brush, & Shors, 2016).

Research indicates that the most commonly perceived barriers to engagement in regular physical activity were psychiatric medication side effects, physical comorbidities, coping with symptoms of mental illness, limited motivation, insufficient time, childcare responsibilities,

injury, and poor health (Booth, Bauman, Owen, & Gore, 1997; Glover, Ferron, & Whitley, 2013). Schutzer and Graves (2004) identified physical environment as another barrier to physical activity, indicating that individuals who did not live close to a facility or park were significantly less active than those who did. Environments with high crime rates also significantly decrease the likelihood of people engaging in physical activity (Schutzer & Graves, 2004). Glover et al. found that people with severe mental illnesses experience unique barriers to exercise, including side effects from psychiatric medications, coping with symptoms of mental illness, and physical comorbidities.

Yoga. Yoga is a lifestyle philosophy originating in ancient India, with an ultimate goal of uniting mind, body, and spirit. In Western cultures, yoga is typically associated with a range of physical postures and movements that incorporate breathing and meditation techniques (Cramer, Lauche, Langhorst, & Dobos, 2013). An estimated 15 million American adults have practiced yoga in their lifetime, and 7.4 million have practiced yoga within the past year (Shapiro et al., 2007). In addition to evidence indicating numerous physiological benefits (Raub, 2002), preliminary evidence supports the use of regular yoga practice to improve behavioral health and mood in general (Shapiro et al., 2007). None of the studies reviewed found evidence of significant adverse effects resulting from yoga intervention (Cramer et al., 2013; Louie, 2014; Vancampfort et al., 2012).

Cramer et al. (2013) conducted a meta-analysis of 12 studies, which found limited to moderate evidence of short-term improvements in symptoms of anxiety and depression following a yoga-based intervention. Efficacy was supported for meditation-based yoga interventions, but not for more complex, or exercise-focused, yoga interventions. This analysis included only randomized controlled trials and randomized crossover studies (using only data

from active treatment phases) focused on adults diagnosed with depressive disorders, or with elevated levels of depression. No restrictions were applied based on yoga tradition, length, frequency, or course duration. The yoga interventions were diverse, and included complex yoga interventions including physical postures and either breathing exercises or meditation, laughter yoga, the Broota Relaxation Technique, exercise-based yoga interventions, Iyengar yoga, Kirtan Kriya yoga, Sudurshan Kriya yoga, Sahaj yoga meditation, and Shavasana yoga. Program lengths ranged from 3 days to 12 weeks. The authors stated that the effects of yoga were comparable to those of standard interventions, such as pharmacological treatment, group therapy, and social support groups (Cramer et al., 2013). Another meta-analysis of 40 RCTs conducted by Chen et al. (2012) found further support for the use of yoga for the treatment of anxiety. This meta-analysis found consistent evidence that moving meditation, such as qigong, tai chi, or yoga were efficacious for reducing symptoms of anxiety (Chen et al., 2012).

A critical literature review of six studies of yoga with an emphasis on asanas (traditional yoga poses) found that depression levels decreased significantly across all of the studies reviewed (Louie, 2014). The studies in this review focused on depressed individuals age 18 years and up, from a variety of different backgrounds and institutions including universities, senior living communities, correctional facilities, and others living in the community. Four of these studies were randomized controlled trials, one was a within-subject repeated measures design, and one was a mixed-methods uncontrolled qualitative study design. Types of yoga included The Silver Yoga Exercise Program (designed for older adults), loosening exercises, sitting and supine poses, breathing exercises, devotional singing, Iyengar yoga, and Vinyasa yoga. Yoga sessions lasted from 60 to 90 minutes per session, meeting between twice per week and six times for week. Yoga courses ranged from 12 weeks to 24 months. This review concluded that yoga

interventions showed greatest efficacy for participants with mild-to-moderate baseline depression levels. As in other studies, this review found no reports of injury or significant adverse effects (Louie, 2014).

A controlled trial study conducted by Khumar, Kaur, and Kaur (1993) found that Shavasana yoga was superior to no treatment for alleviating depression among 50 female university students diagnosed with severe depression. Furthermore, this study found that participation in the yoga practice for a greater number of sessions was positively correlated with a reduction in symptom severity.

Shapiro et al. (2007) found that yoga was an effective supplement to pharmacological treatment among patients prescribed antidepressant medications with ongoing residual symptoms of depression. The participant sample was comprised of 27 women and 10 men diagnosed with Major Depressive Disorder, who were currently under the care of a physician and had been taking an antidepressant medication for at least three months. The average age of the sample was 44.8 years. With regard to occupation, the sample included six students, three retirees, two unemployed, and 26 in professional, technical, and white-collar professions. This study used Iyengar yoga, and participants attended 60-90 minute classes, three times per week for eight weeks. Their findings indicated that significant reductions were observed for clinical symptoms of depression, anxiety, expression of anger, neurotic symptoms, and limitations on usual role activities because of emotional difficulties. This study also found that the attrition rate for participation in this program (19%) was lower than the rate observed in many exercise programs.

Preliminary evidence obtained from two meta-analyses supports the use of yoga for schizophrenia (Cramer et al., 2013; Vancampfort et al., 2012). Cramer et al. found moderate evidence of short-term improvements in quality of life—but not symptom relief—in individuals

diagnosed with schizophrenia following yoga interventions. This review included only randomized control trials and randomized crossover trials.

Vancampfort et al. (2012) found that yoga was an effective supplemental treatment to pharmacotherapy for individuals with schizophrenia, capable of reducing general psychopathology, including positive and negative symptoms, and improving health-related quality of life. This review included only randomized control trials of individuals who met diagnostic criteria for schizophrenia, and that compared a yoga treatment group with an exercise or wait list control group.

Meditation and mindfulness. Humans have been practicing different forms of meditation for thousands of years, many of which originate in Eastern cultures, such as Vipassana, Zen/Chan, and Quigong meditations. Chen et al. (2012) defines meditation as "...any of a family of practices in which the practitioner trains an individual to calm his/her mind in order to realize some benefit or achieve inner peace or harmony" (p. 546). Most forms of meditation involve some type of mental exercise such as mindfulness or guided imagery. These mental exercises are typically practiced on a consistent basis in order to increase effectiveness. Research provides fairly consistent support for meditation and mindfulness as an effective treatment option for psychological distress (Bergen-Cisco & Cheon, 2014; Britton et al., 2014; Chen et al., 2012; Chiesa & Serretti, 2009; Eberth & Sedlmeier, 2012; Eppley, Abrams, & Shear, 1989; Grégoire & Lachance, 2014; Grossman, Niemann, Schmidt, & Walach, 2004; Manzoni, Pagnini, Castelnuovo, & Molinari, 2008; Sedlmeier et al., 2012; Simkin & Black, 2014; Zoogman, Goldberg, Hoyt, & Miller, 2014). Positive changes include reduced symptoms of anxiety, stress, neuroticism, and negative emotions, enhanced sense of well-being, improved self-attributed mindfulness, and improved attention (Bergen-Cisco & Cheon, 2014; Eberth &

Sedlmeier, 2012; Sedlmeier et al., 2012). Research also suggests that mindfulness may be a viable treatment option for use with youth (Zoogman et al., 2014). Thus, although limited, the extant research on mindfulness for behavioral health conditions supports its use as an alternative treatment option.

Eberth and Sedlmeier (2012) conducted a meta-analysis of 39 different studies comparing the effects of Mindfulness-Based Stress Reduction (MBSR) and “pure” mindfulness meditation on various psychological variables for meditators in non-clinical settings. All studies included in this meta-analysis had a primary research sample of nonclinical adults, incorporated an inactive control group, investigated at least one psychological measure, and provided enough data to compute effect sizes (Ebert & Sedlmeier, 2012). MBSR is an 8-week intensive training in mindfulness for stress reduction that incorporates elements of both meditation and yoga (Kabat-Zinn, 1994). Participants meet once weekly throughout the 8-week period. This program is currently offered in medical centers, hospitals, and clinics around the world. This study found that MBSR interventions had the strongest effects on psychological wellbeing (reduced stress, less negative emotions, reduced anxiety, greater well-being). Pure mindfulness meditation interventions, on the other hand, were found to have the strongest effects on mindfulness-related variables. The researchers concluded that in general, the cultivation of mindfulness through the practice of meditation leads to positive changes in self-compassion and trait anxiety (Eberth & Sedlmeier, 2012).

A more recent meta-analysis reviewed 20 different studies that used mindfulness interventions with youth samples (ages 6-21; Zoogman et al., 2014). Treatment outcome measures included measures of general functioning (e.g. social skills, quality of life), measures of psychological symptoms (e.g. depression, anxiety), and measures of mindfulness and

attention. The studies reviewed included both clinical and non-clinical samples. This review found a small to moderate effect size overall for treatments utilizing mindfulness with youth compared to active alternative treatments. Significantly larger effect sizes were found for psychological symptom reduction compared to other dependent variables. Overall, this review concluded that mindfulness meditation might be a promising treatment option for youth populations, with little to no risk of iatrogenic harm (Zoogman et al., 2014).

Self-management programs. Self-management programs are group interventions that are designed to educate and support patients' self-efficacy, psychological and physical health, and health behaviors (e.g., exercise, eating well, communication with PCP), while decreasing their health care utilization and social/role limitations (Brady et al., 2011). Most self-management programs are designed to help people with chronic conditions to become more confident in their ability to manage their symptoms and enhance functioning in daily life (Brady et al., 2011; Ory, Smith et al., 2013; Ory, Ahn, Jiang, Lee Smith et al., 2013).

The Stanford Chronic Disease Self-Management Program (CDSMP) is one of the most researched and widely disseminated evidence-based self-management programs (Ory, Smith et al., 2013). This model was developed by researchers at Stanford University as a tool for individuals with chronic diseases to learn how to deal with pain, depression, fatigue and other problems; become more physically active; become better educated about medication management; manage their diets; and effectively communicate with family, friends, and health professionals (Ory, Ahn, Jiang, Lee Smith et al., 2013). CDSMP uses a small-group workshop format facilitated by two trained group leaders who have at least one chronic disease, and who are not health professionals. The group meets weekly for six weeks (Ory, Ahn, Jiang, Lee Smith et al., 2013).

Numerous studies have found CDSMP to be an effective intervention for those with chronic diseases, mostly middle-aged and older adults (Brady et al., 2011; Lorig, Hurwicz, Sobel, Hobbs, & Ritter, 2005; Ory, Ahn, Jiang, Lee Smith et al., 2013; Ory, Ahn, Jiang, Lorig et al., 2013; Ory, Smith et al., 2013; Sobel, Lorig & Hobbs, 2002). This program has also been proven effective in treating distress, depression, and anxiety among patients with chronic disease, raising the possibility of whether it could be helpful for patients with chronic mental health conditions (Brady et al., 2011; Ory, Ahn, Jiang, Lorig et al., 2013).

Druss et al. (2010) developed and tested a modified version of CDSMP—the Health and Recovery Peer (HARP) Program—for use with individuals with serious mental illness. Eighty randomized participants with one or more chronic conditions were assigned to either the HARP program or care as usual (Druss et al., 2010). Findings from this study indicated that the HARP program was feasible to implement. Findings also indicated significantly improved patient activation and likelihood of using primary care medical services among patients enrolled in the HARP program, compared with patients receiving care as usual. Although these types of outcomes were not included in this study, increases in patient activation are often associated with improvements in self-management behaviors (Hibbard et al., 2007), adherence to medication prescriptions, and quality of life (Mosen et al., 2007).

Another self-management intervention that has shown significant promise as an effective alternative treatment option for distressed patients is Wellness Recovery Action Planning (WRAP). WRAP helps individuals develop a variety of self-care skills, such as identification of personal wellness resources, how to use these resources in daily living, how to deal with symptom triggers, and how to recognize early warning indicators of illness exacerbation and crisis (Cook et al., 2012). Participants learn these skills through lectures, individual and group

exercises, and discussions, which occur during weekly group sessions led by two peer behavioral health consumers who have been certified after attending a WRAP group facilitator training. The course of the WRAP program typically lasts for 8 weeks (Cook et al., 2012).

Several studies have identified WRAP as an effective intervention for reducing symptoms of depression and anxiety, increasing self-awareness, increasing hope and recovery orientation, reducing use of formal health services, and reducing unmet service needs (Cook et al., 2012; Cook et al., 2013; Pratt, MacGregor, Reid, & Given, 2013; Starnino et al., 2010). Cook et al. (2012) conducted a randomized controlled trial of adult patients categorized as having a serious mental illness; the study used a wait-list control design to compare WRAP with services as usual. This study found that WRAP achieved superior improvements in symptoms of depression and anxiety compared to usual treatment (Cook et al., 2012).

Another randomized controlled trial conducted by Cook et al. (2013) compared WRAP with an evidence-based nutrition course, called Choosing Wellness. This study found that participants in both treatment groups achieved significant improvement in clinical and recovery outcomes. The WRAP treatment group also exhibited a significant decline in the use of formal health services, and unmet service needs overall. Since it has proven effective and feasible for large-scale dissemination, WRAP has been widely disseminated, and is currently offered in every US state, as well as numerous other countries across the world (Cook et al., 2012).

Peer support groups. Research indicates that peer support groups have the potential to decrease isolation, reduce the impact of stressors, facilitate development of new coping strategies, and expose participants to positive peer role models (Dennis, 2003). Additionally, it was found that peer support groups can promote improved awareness and inhibition of maladaptive behaviors, positive psychological states and individual motivation, and sharing of

information regarding access to medical services and the benefits of positive health behavior changes among peers (Dennis, 2003).

A meta-analysis of seven randomized controlled trials (RCTs) conducted by Pfeiffer, Heisler, Piette, Rogers, and Valenstein (2011) found that peer support interventions significantly improved symptoms of depression when compared with care as usual. This meta-analysis also found the effects of peer support interventions to be comparable to those of group cognitive behavioral therapy (Pfeiffer et al., 2011). Although other studies have been conducted on the effectiveness of peer support groups, high quality research on peer support interventions at this time is relatively limited (Davidson et al., 1999; Lloyd-Evans et al., 2014).

We Know Little About the Acceptability of Alternative Treatment to IPC Patients

Despite the evidence supporting the foregoing alternative treatment options, we know very little about the acceptability of these interventions to patients in IPC environments. By investigating which alternative interventions patients would consider using, we can begin to move toward implementing patient-preferred options. Other potential benefits of this study include the identification of more referral options for patients with behavioral health treatment needs, and the reduction of behavioral health treatment demands on overburdened PCPs and BHCs.

This Study Aims to Investigate the Acceptability of Alternative Treatment Options

This study will address the aforementioned information gap by exploring the acceptability of alternative behavioral health treatment options for emotionally distressed patients in IPC settings. The results of this research could inform the extent to which IPC patients might consider using these alternative treatment options. The primary research questions are:

1. How acceptable are the aforementioned alternative treatments to IPC patients?
2. Are some alternative treatments more acceptable to IPC patients, and if so, why?

Method

Research Design

A mixed methods research strategy was used, incorporating both quantitative and qualitative data collection and analysis. This study used a survey design to investigate the acceptability of alternative treatment options among patients receiving care within an IPC setting. For the quantitative element, patients were asked to rate the acceptability of seven alternative treatment options. For the qualitative element, patients were asked to respond to three open-ended questions regarding perceived barriers to engaging in alternative treatment options, ways to overcome barriers, and experiences with other alternative options that patients may have found helpful in the past.

Research Setting

Two different IPC sites, one based in New Hampshire, and one in Massachusetts were selected for participation in this study.

Cheshire Medical Center/Dartmouth Hitchcock Keene. Cheshire Medical Center/Dartmouth Hitchcock (CMC/DHK) is a community medical practice located in Keene, New Hampshire. CMC/DHK is a multi-specialty site comprised of 144 physicians and 54 associate providers working in over 25 medical specialties. CMC/DHK serves populations from southwestern New Hampshire, southeastern Vermont, and north central Massachusetts. In 2015, CMC/DHK had 372,000 patient visits. The population of this rural area is around 90,000 people from diverse socioeconomic backgrounds. CMC/DHK implemented an IPC model in 1998, utilizing the primary care behavioral consultation model. Patients are referred to the co-located

behavioral health specialist on the basis of PCP clinical judgment. The population of Cheshire County is 94.4% Caucasian (not Hispanic or Latino), 0.8% African American, 0.3% American Indian, 1.5% Asian, 1.7% Hispanic or Latino, and 1.6% two or more races, according to census data obtained in 2015. Data collected from CMC/DHK was obtained from the women's health department and referrals made to the BHC from primary care.

Barre Family Health Center. Barre Family Health Center (BFHC) is a relatively small community health center located in Barre, Massachusetts, which provides care for Barre and 10 other towns in the surrounding area. This site serves a rural, predominantly Caucasian population. Many of the patients seen at BFHC are also of a lower socioeconomic bracket. BFHC is a part of the University of Massachusetts Memorial Hospital system, and serves as a residency training site for the UMass Medical School family medicine program. The BFHC staff includes 10 full time family physicians, 12 medical residents, 3 full-time behavioral health clinicians and one part-time behavioral health clinician, a pharmacy team, a podiatrist, and a team of nurses. Additionally, BFHC works with a consulting cardiologist, and adult and child psychiatrists. BFHC is an IPC site, providing in-house psychological and psychiatric outpatient services. BFHC is recognized as a level three Patient Centered Medical Home by the NCQA. The most recent available census data indicates that BFHC serves 6624 patients, including 953 patients age 65 or older, 8 American Indian/Alaskan Native patients, 23 Asian patients, 61 African American Patients, 31 Hispanic or Latino patients, and 5383 Caucasian patients.

Participants

Behavioral health patients from IPC sites were asked by BHCs to participate in the survey. Participation was voluntary and no inducements for participation were provided. All patients who were 18 years of age or older and had been referred to a BHC by their PCP due to

reported psychological distress (anxiety, depression, etc.) were eligible for the study. Based on research indicating that PCPs tend to refer their most severely distressed patients to BHCs (Fauth & Tremblay, 2011), it was assumed that the resulting sample would be moderately to severely distressed.

Data was obtained from a total of 72 participants, ranging in age from 18 to 77 years. The patient sample was comprised of 53 females and 19 males. The significantly greater proportion of female participants can be explained by the fact that the CMC/DHK sample was obtained exclusively through the Women's Health Department. The participant sample from CMC/DHK was comprised of 40 female and 9 male participants while the participant sample from BFHC was comprised of 13 females and 10 males.

Measures

Demographic information. Patient demographic information collected for this study included age and gender. This information was obtained through a demographic section on the AATOQ (Leandri, 2016; See Appendix B). Demographic information was collected in order to provide information regarding the composition of the sample of study participants, and so that the researcher could explore potential response patterns by age and gender.

Acceptability of Alternative Treatment Options Questionnaire (AATOQ).

Kazdin (2000) stated that, in order for a treatment to be acceptable, it must be perceived by the community as "fair, justified, reasonable, and palatable" (p. 158). Kazdin (1980) hypothesized that treatments that are viewed by the public as more acceptable are more likely to be utilized than those viewed as less acceptable. Furthermore, treatment acceptability has been identified as a predictor of treatment effectiveness (Kazdin, 2000).

As no existing acceptability rating scale was found that addressed the topics that this study proposed to investigate, I developed a new instrument specifically for this study: the Acceptability of Alternative Treatment Options Questionnaire (AATOQ). A literature review of acceptability rating scales was conducted in order to identify acceptability measure best practices. A study conducted by Finn and Sladeczek (2001) reviewed nine different treatment acceptability measures. This review indicated that treatment acceptability has typically been assessed using a questionnaire format wherein respondents rate statements or questions using a Likert or a similar type of rating scale, and that such questionnaires typically display adequate reliability and validity. These types of scales are commonly used to measure respondents' attitudes by asking them to indicate the degree to which they agree or disagree with a particular statement or question.

The AATOQ is a brief, ten-item instrument designed to measure whether proposed alternative treatment options will be accepted and used by distressed IPC patients. Respondents indicated their likelihood of utilizing seven different alternative interventions using a five-point Likert Scale for each response option (1= definitely not, 2= probably not, 3= unsure, 4= probably, 5= definitely). The seven alternative treatment options are an individual exercise program, a group exercise class, an individual yoga program, a group yoga class, a guided group meditation/mindfulness class, a self-management group, and a peer-led support group. Patients also responded to three open-ended questions regarding perceived barriers to engaging in the proposed alternative interventions, ideas about what might make them more likely to participate in these interventions, and any previous experience with any other unconventional or alternative treatments or activities that patients may have found helpful.

Procedure

Onsite BHCs collected study data from patients who met inclusion criteria and consented to participate. The BHCs inquired with patients regarding whether they would be willing to participate in this study during a scheduled appointment. Patients who agreed were provided with a packet including a study participation consent form (see Appendix A) and the AATOQ questionnaire. The consent form stated that the patient's voluntary completion of the AATOQ indicates that the patient consented to participate in the study. Therefore, patients were not required to sign anything, so their participation was completely anonymous. The consent form also indicated to the patient that all information provided was to be used exclusively for research regarding the acceptability of alternative treatment options, that they would not be asked to provide their names, and that all information obtained would be kept confidential.

Once the patient had reviewed the consent form, he or she completed the AATOQ with a pencil and clipboard in the examination room. Patients were advised to take as much time as they need to completed the questionnaire. However, the AATOQ is expected to only take approximately 3-5 minutes to complete. It could therefore be completed immediately before or after an appointment with a BHC, and did not interfere significantly with the clinical workflow. Once a patient completed the AATOQ, he or she returned it to the BHC. The BHC then filed the AATOQ with the other collected questionnaires in a secure location on site. The researcher later collected the surveys from the participating IPC site once that site had collected an adequate number of completed questionnaires. Both participating sites stored the completed AATOQ forms in secure locations until the researcher collected them. Once collected, the researcher scanned each completed questionnaire into a secure digital file and shredded the original documents.

Analysis

Quantitative data. Quantitative data was analyzed using measures of central tendency for each item. In this way, the researcher was able to determine the mean, median, mode, and range of patient ratings for each of the Likert items (items 1 through 7). Additionally, quantitative data analysis entailed group comparisons by site, gender, and age. Analysis of mean, median and modal responses directly addressed the primary research questions by providing information about how acceptable participating patients rated the different alternative treatment options, and which were rated as most acceptable. Analysis primarily focused on items that were most highly rated by the greatest number of respondents, as these were most relevant to the primary research questions for this study. Additionally, inferential statistical analysis was used to test for statistically significant differences in response patterns between subgroups. This was addressed through use of MANOVAs for the site subgroups and gender subgroups, and bivariate correlation for age.

Qualitative data. The researcher conducted a thematic content analysis of participants' responses to the three qualitative question items (items 8 through 10). The resultant data was culled for common themes regarding patients' perceived barriers to engaging in proposed alternative treatment options, possible ways to overcome such barriers, and experience with alternative treatments or activities that they may have found helpful. This information helped answer why certain treatment options were rated as more acceptable than others.

Results

The purpose of this study was to learn more about distressed IPC patients' perceived acceptability of various alternative treatment options. More specifically, this study investigated which alternative treatment options patients considered to be the most acceptable, and what

factors might enhance or hinder patients' likelihood of utilizing alternative treatment options. Descriptive analyses were conducted on all quantitative survey items. In addition, inferential statistics were used to check for statistically significant differences by site, gender, and age. Thematic analysis was used to analyze the responses to open-ended items.

Quantitative Data: Patient Rated Acceptability of Alternative Treatment Options

I conducted descriptive analyses on each of the seven Likert items (items 1 through 7 on the AATOQ) that asked for participants' ratings of the alternative treatment options. The results based on the entire sample (BFHC and DHK/CMC) are provided below.

Total sample findings. Overall, the most highly—and consistently—rated alternative treatment option was the individual exercise program. The second most highly rated alternative treatment option was the individual yoga program. Individual yoga program ratings were more variable than those for individual exercise. Most importantly, the individual exercise and individual yoga programs were the only two alternatives that patients rated as feeling more than unsure about (above 3.0).

Participants generally found the individual alternative treatment options to be more acceptable than the group intervention options. All group-based interventions were rated below the unsure (3.0) level and the two lowest-rated alternatives were group interventions (group meditation and yoga classes).

Figure 1

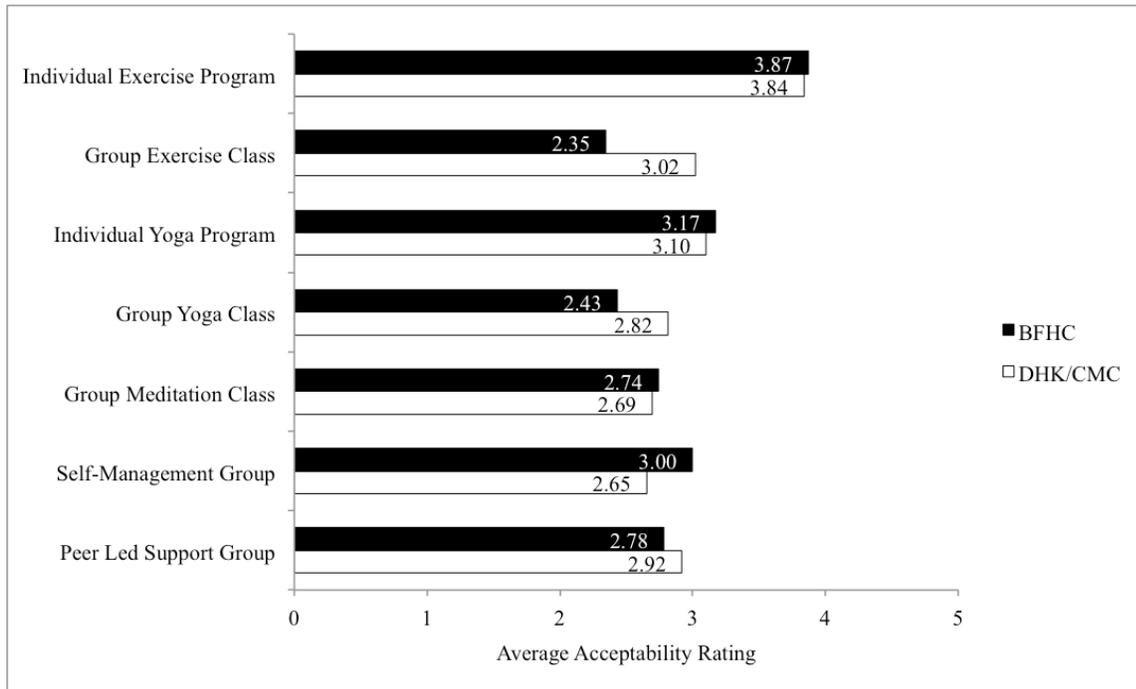
Total Sample Descriptive Statistics

	Mean	Median	Mode	Std. Deviation
Individual Exercise Program	3.85	4.00	4.00	1.07
Individual Yoga Program	3.13	3.00	4.00	1.34
Peer-led Support Group	2.88	3.00	4.00	1.23
Group Exercise Class	2.81	3.00	3.00	1.24
Self-Management Group	2.76	3.00	3.00	1.20
Group Meditation Class	2.71	3.00	4.00	1.32
Group Yoga Class	2.69	3.00	2.00	1.30

Subgroup analyses. I conducted subgroup analyses to examine differences by gender, site, and age. Differences by site and gender were tested with multivariate analyses of variance (MANOVAs). The relationship between age and ratings was analyzed using bivariate correlation.

Site subgroup analysis. The results indicated that BFHC ($N = 23$) had the highest rating for an intervention between the two sites, with a rating of 3.87 for the individual exercise program. DHK/CMC ($N = 49$) obtained an average rating close to BFHC for the individual exercise program, with a rating of 3.84. Ratings for most of the interventions were relatively close between the two sites, with the greatest differences occurring between sites for the group exercise, group yoga, and self-management group items.

Figure 2

Site Subgroup Analysis Bar Chart

The MANOVA results indicated that there was a statistically significant difference between sites, $F(7,64) = 2.51, p < .05$. The univariate results indicated a statistically significant difference between sites for the group exercise item, $F(1,70) = 4.85, p < .05$. This result indicates that DHK/CMC participants rated the group exercise intervention significantly higher than BFHC participants. No statistically significant differences were found between any of the other items.

Figure 3

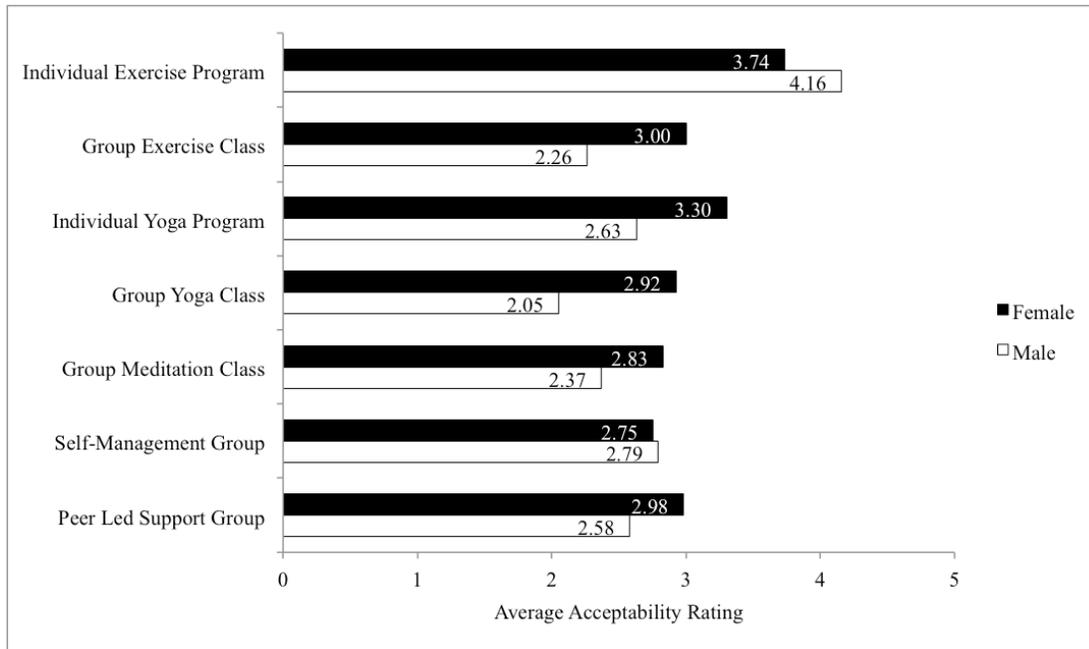
Site MANOVA Results

Multivariate Results					
	<i>df</i>	Error <i>df</i>	<i>F</i>	η	<i>p</i>
Site	7	64	2.51	.22	.02*
Univariate Results					
Ind. Exercise	1	70	.02	.00	.90
Group Exercise	1	70	4.85	.07	.03*
Ind. Yoga	1	70	.04	.00	.83
Group Yoga	1	70	1.36	.02	.25
Group Meditation	1	70	.02	.00	.89
Self-Management	1	70	1.30	.02	.26
Peer-led Support	1	70	.19	.00	.67

*Significant at the $p < 0.05$ level

Gender subgroup analysis. Both males ($N = 19$) and females ($N = 53$) rated the individual exercise program the highest, on average, with ratings of 4.16 and 3.74, respectively. Overall, female ratings were more consistent across items than males. The greatest discrepancy between ratings was for group exercise, individual yoga, and group yoga items, all of which were more acceptable to female participants.

Figure 4

Gender Subgroup Analysis Bar Chart

The MANOVA indicated that there was a statistically significant difference between genders, $F(7,64) = 3.10, p < .05$. The Univariate results indicated that there was a statistically significant difference between genders for the group exercise item, $F(1,70) = 5.23, p < .05$, and the group yoga item, $F(1,70) = 6.85, p < .05$. Female participants rated the group exercise class and group yoga class interventions significantly higher than their male counterparts.

Figure 5

Gender MANOVA Results

Multivariate Results					
	<i>df</i>	Error <i>df</i>	<i>F</i>	η	<i>p</i>
Gender	7	64	3.10	.25	.01*
Univariate Results					
Ind. Exercise	1	70	2.21	.03	.14
Group Exercise	1	70	5.23	.07	.03*
Ind. Yoga	1	70	3.62	.05	.06
Group Yoga	1	70	6.85	.09	.01*
Group Meditation	1	70	1.74	.02	.19
Self-Management	1	70	.011	.00	.92
Peer-led Support	1	70	1.50	.02	.23

* Significant at the $p < 0.05$ level

Age subgroup analysis. Bivariate correlation was used to assess if age of respondent was reliably associated with acceptability ratings. The results of this analysis indicated that there was no statistically relationship between age and acceptability ratings. Pearson's correlation (r) and significance values (p) are reported in the table below.

Figure 6

Age Bivariate Correlation Results

Item:	<i>r</i>	<i>p</i>
Ind. Exercise	.08	.52
Group Exercise	-.07	.59
Ind. Yoga	-.15	.21
Group Yoga	-.12	.33
Group Meditation	-.06	.62
Self-Management	-.21	.08
Peer-led Support	-.03	.81

* Significant at the $p < 0.05$ level

Qualitative Data: Barriers, Supports, and Previously helpful Activities/Treatments

I analyzed the qualitative data from items eight through ten, using thematic analysis. Thematic analysis is a method for labeling, classifying, and describing a qualitative data set by categorizing the data (Braun & Clark, 2006). The data is reported through a process of coding the information into varying levels of themes. The goal of the thematic analysis is to provide a detailed, yet organized, depiction of the whole qualitative data set in the simplest way possible. This study used the thematic analysis approach outlined by Braun and Clark.

Item 8: Barriers to utilization of alternative treatments. Item 8 asked participants: “What might get in the way of taking part in any or all of the options you’ve just reviewed?” Responses provided by participants were coded, and primary, secondary, and tertiary themes were extracted from the resulting codes. Two primary themes emerged from the results: (a) internal/self barriers and (b) situational/external barriers.

Internal/self barriers included those that were based on the respondents’ perceived personal limitations. Two secondary themes emerged from the internal/self barriers primary

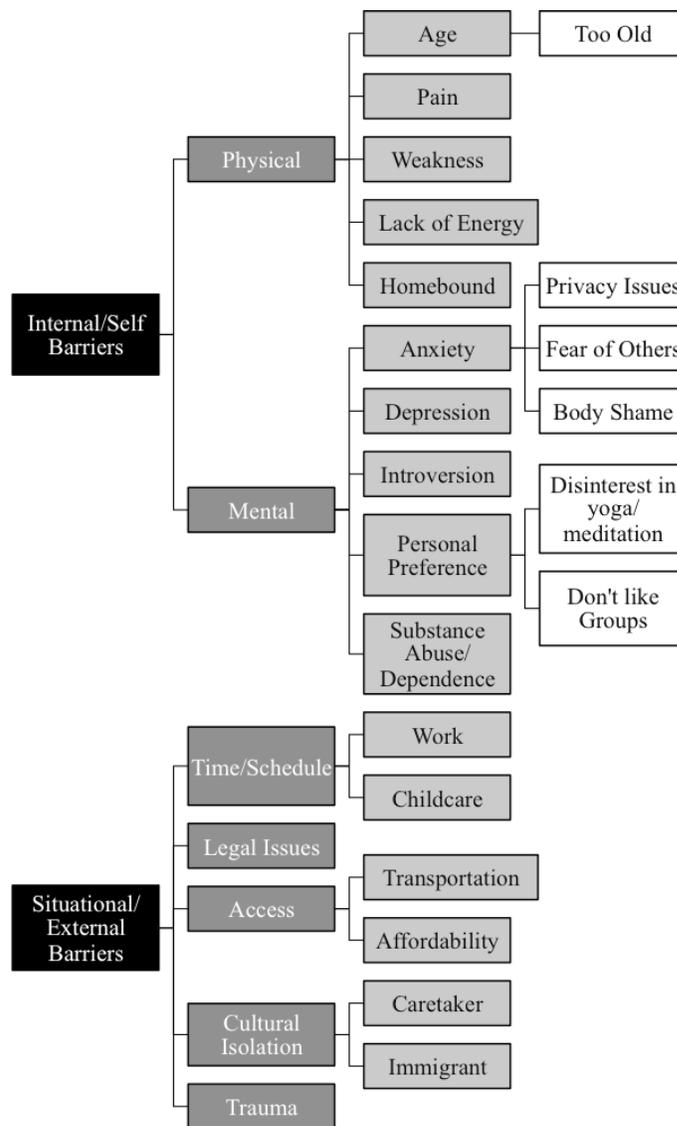
theme: physical and mental. The physical secondary theme had to do with physiological barriers, such as age, pain, weakness, lack of energy, and being homebound. Examples of these kinds of responses include: “I’m too uncomfortable to move,” “I’m too weak to get out,” and “I don’t have the energy to do it.” The mental secondary theme had to do with psychological or cognitive barriers, such as anxiety, depression, introversion, personal preference, and substance abuse/dependence. Examples of these mental barriers include: “I don’t feel comfortable meeting others about this,” “I can’t do anything right because my anxiety’s too high,” and “I don’t like meditation or yoga.”

The situational/external barriers primary theme had to do with environmental factors, such as time or scheduling issues. Secondary themes that emerged from the situational/external barriers included time/schedule, legal issues, access, cultural isolation, and trauma. The time/schedule secondary theme had to do with time constraints or scheduling barriers. Examples of responses from the time/schedule secondary theme included: “My work schedule,” “Childcare,” “Caretaking for my husband—I can’t leave him,” and “School.” The legal issues secondary theme emerged from responses that referenced any sort of legal obligations such as court hearings or fines. An example of a response from the legal issues secondary theme was: “I’m doing so many court mandated things right now.” The access secondary theme emerged from responses that referenced barriers to accessing services. Examples of responses from the access secondary theme included: “No transportation” and “Cost.” The cultural isolation secondary theme emerged from responses that referenced barriers related to culturally based difficulties, such as communication. Examples of responses from the cultural isolation secondary theme included: “Not enough support for my culture,” and “There are no people from my culture here.” The trauma secondary theme emerged from responses that referenced barriers related to

past traumatic experiences or PTSD symptoms. One example of a response from the trauma secondary theme was: “Getting too flooded by past trauma.”

Figure 7

Barriers to Alternative Treatment Utilization Diagram



Item 9: Potential alternative treatment engagement supports. Item 9 asked participants: “What might help you engage in the options you just reviewed?” Responses provided by participants were coded, and primary, secondary, and tertiary themes were extracted from the resulting codes. Three primary themes emerged from the results: situational/external supports, natural supports, and professional supports.

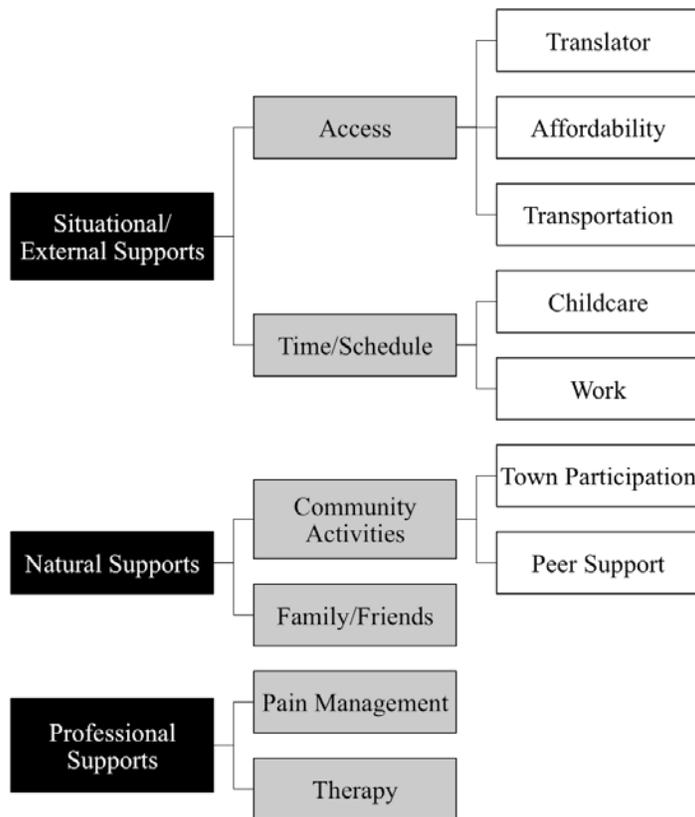
The situational/external supports primary theme had to do with environmental factors, such as time or scheduling issues. Secondary themes that emerged from the situational/external supports primary theme included access and time/schedule. The access secondary theme emerged from responses that referenced barriers to accessing services. Examples of responses from the access secondary theme included: “If financially and physically capable,” “Taking the Elderbus more often,” and “Translator.” The time/schedule secondary theme emerged from responses that referenced time constraints or scheduling barriers. Examples of responses from the time/schedule secondary theme included: “More free time,” “Childcare,” and “Falling on a night I am available.”

The natural supports primary theme included those that pertained to respondents’ social networks, including their families, friends, peers, and communities. Secondary themes that emerged from the social supports primary theme included community activities and family/friends. The community activities secondary theme emerged from supports that involved engagements within the community, such as clubs or meetings. Examples of responses from the community activities secondary theme included: “Others reaching out, and same case scenarios,” and “Getting to know someone there.” The family/friends secondary theme emerged from responses that referenced supports that involved friends or family members. Examples of responses from the friends/family secondary theme included: “If it was with my friends or family,” “Having a friend to come with me,” and “Strong insistence from trusted individuals.

The professional supports primary theme included commonly prescribed treatments, such as therapy and case management. Secondary themes that emerged from the professional supports’ primary themes included pain management and therapy. The pain management secondary theme emerged from responses that referenced interventions specifically designed to

reduce physical pain. An example of a response from the pain management secondary theme was: “Not being in pain.” The therapy secondary theme emerged from responses that referenced any form of conventional psychotherapy. Examples of responses from the therapy secondary theme included: “Really just need to get back into therapy,” and “Perhaps more time in individual psychological care first, to become more comfortable in group settings.”

Figure 8

Alternative Treatment Engagement Supports Diagram

Item 10: Currently/previously helpful alternative activities/treatments. Item 10 stated: “Please describe any other treatments or activities, besides medication or therapy/counseling that you have found helpful in reducing your distress now or in the past.” Responses provided by participants were coded, and primary, secondary, and tertiary themes were extracted from the resulting codes. Three primary themes emerged from the results: alternative supports, professional supports, and natural supports.

The alternative supports primary theme included supports similar to those addressed in this study, such as exercise, yoga, and meditation, along with creative and artistic outlets, and alternative medicine treatments. Secondary themes that emerged from the alternative supports primary theme included physical, artistic outlets, and alternative medicine. The physical

secondary theme emerged from responses that referenced any form of physical exercise. Examples of responses from the physical secondary theme included: “Going to the gym,” “Breathing exercises,” “Yoga,” and “Hiking.” The artistic outlets secondary theme emerged from responses that referenced any creative or artistic activities. Examples of responses from the artistic outlets secondary theme included: “Crafting,” “Being part of a band,” “Looming,” and “Coloring.” The alternative medicine secondary theme emerged from responses that referenced alternative medical interventions. Examples of responses from the alternative medicine secondary theme included: “Light therapy,” “Postpartum doula,” and “Medical marijuana.”

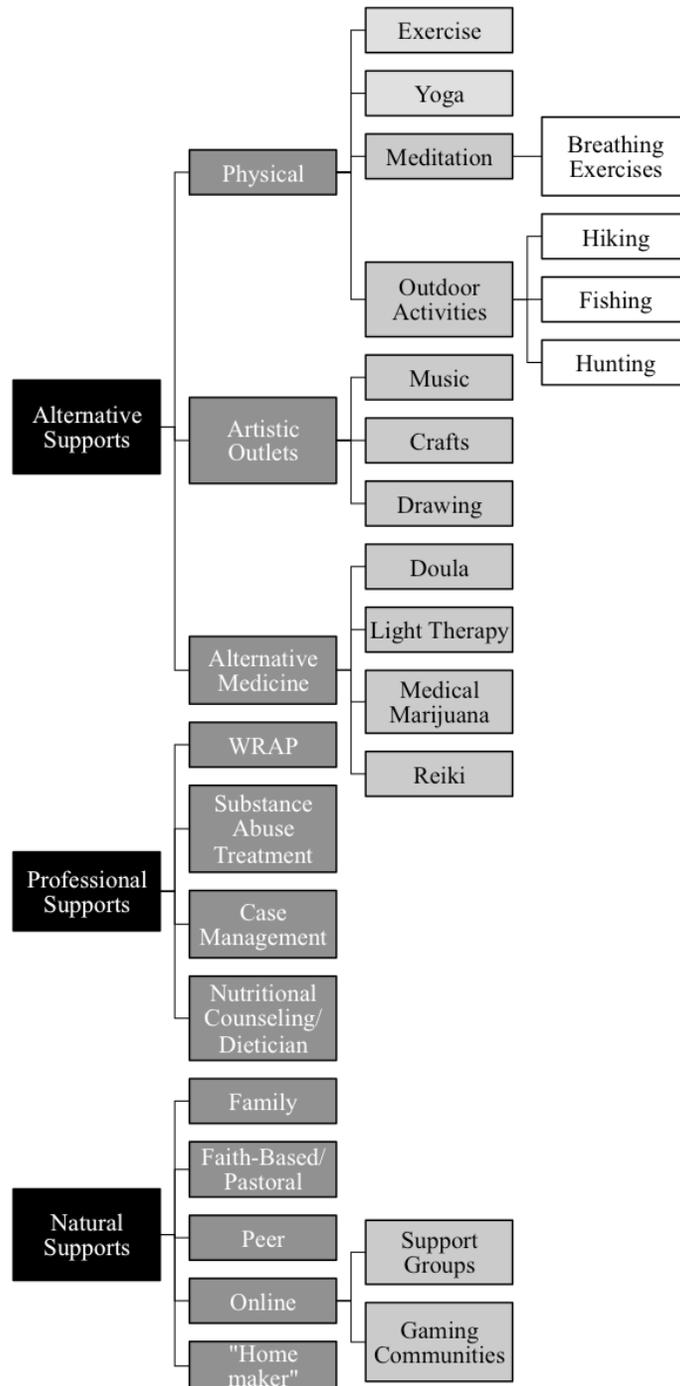
The professional supports primary theme included evidence-based treatments, such as WRAP, substance abuse treatment programs, and case management. Secondary themes that emerged from the professional supports primary theme included WRAP, substance abuse treatment, case management, and nutritional counseling/dietician. The WRAP secondary theme emerged from responses that referenced the Wellness Recovery Action Plan evidence-based group intervention. The substance abuse treatment secondary theme emerged from responses that referenced drug or alcohol abuse treatment programs. The case management secondary theme emerged from responses that referenced individual or family case management services. The nutritional counseling/dietician secondary theme emerged from responses that referenced any nutritional or dietary services or programs. Responses from the professional supports secondary themes were mostly verbatim responses representative of the secondary themes (e.g., “WRAP,” “Case management,” and “NA and AA meetings”).

The natural supports primary theme included supports that came from family, friends, or other community members. Secondary themes that emerged from the community supports primary theme included family, faith-based/pastoral, peer, online, and “home maker.” The family

supports secondary theme emerged from responses that referenced support from family members. Examples of responses from the family supports secondary theme included “Being with friends and family,” and “Parents moving in to help.” The faith-based/pastoral secondary theme emerged from responses that referenced any religiously based supports. Examples of responses from the faith-based/pastoral secondary theme included “Church,” and “Pastoral counseling.” The peer secondary theme emerged from responses that referenced involvement of peers. Examples of responses from the peer secondary theme included: “Self-help/support groups,” “Social activities,” and “Clubs for adults.” The online secondary theme emerged from responses that referenced support from individuals, groups, or programs on the internet. Examples of responses from the online secondary theme included: “Gaming communities,” “Social networking,” and “Online support.” The homemaker secondary theme emerged from responses that referenced the support of someone who helps with maintaining the home or personal/family care. Examples of responses from the homemaker secondary theme included: “A homemaker to help with things I can’t do as I heal from cancer,” and “Homemaker/social visitor.”

Figure 9

Currently/Previously Helpful Alternatives Diagram



Discussion

This study investigated patient-rated acceptability of alternative treatment options within integrated primary care. The first research question inquired into the acceptability of various potential alternative treatments to IPC patients. In general, we found that the only two alternative treatment options that participants rated, on average, as feeling more than unsure/ambivalent about (rating of 3 or higher) were the individual exercise program and the individual yoga program. The other alternative treatment options were rated as more unacceptable than not, on average. In general, this pattern seems to reflect a preference for individually based alternative treatment programs versus group-based programs.

The second research question asked are some alternative treatments more acceptable to IPC patients, and if so, why. The results indicated that the individual exercise program was the most highly rated alternative treatment option, and the individual yoga program was the second most highly rated alternative treatment option. It may be that exercise was most highly rated because that is the alternative participants are most familiar and thus, most comfortable with. Additionally, numerous participants indicated that they were uncomfortable with or disinterested in, group classes. If others feel similarly, than it is likely that they will gravitate more towards individual programs than group classes, which poses a problem from an efficiency standpoint.

Clinical Implications

The findings from the current study support the notion that IPC sites, and possibly other medical sites, should consider implementation of individual exercise and individual yoga programs as a primary or adjunct treatment option for distressed patients. The findings of this study also suggest that sites would have greater luck targeting female patients with group-based exercise and yoga classes, as female participants rated these interventions significantly higher

than males. With regard to the research sites involved in this study, the results suggest that DHK/CMC would have greater participation success with a group exercise class intervention, as participants at DHK/CMC rated this intervention significantly higher than at BFHC.

Although exercise prescription or referral is uncommon in the United States medical system, other countries have begun to implement primary care exercise referral programs. Wales has created the National Exercise Referral Scheme (NERS), a government funded program that has been developed to standardize primary care exercise referral opportunities (Moore, Moore, & Murphy, 2011; Murphy et al., 2010). NERS is a 16-week exercise program that entails supervised consultation, training, and instruction from a qualified exercise professional (EP), including access to one to one instruction and/or group exercise classes, at a highly discounted rate. EPs also review goals, conduct health checks and initial measurements, and help participants to complete lifestyle and service evaluation questionnaires (Murphy et al., 2010).

The Wales government commissioned an evaluation of NERS as it was rolled out in 13 of 22 local health boards across the country. Results of this evaluation revealed a significant increase in physical activity, and a significant decrease in level of anxiety and depression for participants with coronary heart disease (CHD) risk factors only. Participants with CHD risk factors and mental health problems exhibited a statistically significant decrease in both depression and anxiety but did not exhibit a significant increase in physical activity. Overall, participants who completed the full 16-week program were much more likely than participants who did not complete the program to increase physical exercise, and experience improvements in mental health, with a decrease in depression and anxiety (Murphy et al., 2010).

Sites considering implementation of primary care alternative interventions should consider patient-reported supports and barriers to engagement. Some of the most prevalent

themes that emerged had to do with access, including affordability and transportation, and being able to fit these interventions into their schedules around work and childcare. Participants' responses regarding access and transportation were consistent with the findings of the NERS study, which found that patients had a more difficult time accessing the program if they did not have a car. Non-car owners were almost twice as likely not to enter NERS and were 6% less likely to complete the program (Murphy et al., 2010). Participants also reported that it was important for them to have friends, family or other social connections in order to engage in group interventions. These factors should be taken into account when planning development and/or implementation of alternative treatment programs in IPC. One way to account for scheduling preferences might be to provide program schedules that accommodate for work and childcare schedules, perhaps by providing morning, lunch hour, or evening classes. Additionally, a transportation alternative, such as a bus to bring participants to and from a class would likely improve participation rates for those who have limited transportation options. A group transportation option such as this would also enable participants to bring a friend or family member with them, if they feel that this would help them to sustain engagement in the program.

Patients' ratings of exercise and yoga as acceptable represent only the beginning of the process of implementing such interventions in an IPC setting. Successful implementation will also require site, provider, and patient engagement in order to obtain success. Research indicates that provider advice in primary care consultations is not very effective in increasing patient physical activity rates (Lawlor & Hanratty, 2001). One solution to limited engagement is the use of motivational interviewing techniques, which have been proven effective at improving patient engagement with physical activity and exercise recommendations (Scales & Miller, 2003).

Limitations

The greatest limitation of this study was the small and restricted convenience sample. With only 72 participants from a couple of sites in the Northeast, it is difficult to generalize these findings to primary care settings in general. The disproportionately female sample represented another limitation. Additionally, the populations served by both of the participating sites are predominantly rural, Caucasian, and of middle to lower class socio-economic status.

The use of a newly created, unstandardized instrument, the AATOQ, is also a limitation, as there is limited knowledge regarding psychometric properties and comparison with existing instruments and research. Finally, it is important to note the role of the BHCs who disseminated the AATOQ. Although the BHCs did not intentionally exert any influence on participants' responses, it is possible that some participants may have rated items differently, depending on their current relationship with their BHC. Participants may have rated items higher in order to try to please their BHC, or conversely, rated items lower if they were feeling displeased with their BHC.

Another limitation to this study was the lack of direct measurement of participant distress levels. First, the identification of effective alternatives for the study was predicated on scholarly literature that by and large included a heterogeneous sample in terms of distress levels, or failed to specify the level of distress of patients treated. This makes it difficult to determine the effectiveness of these alternative interventions for the more severely distressed patient population targeted by the current study. Second, this study also did not directly measure participants' distress levels. Taken together, this leaves us uncertain if the participant acceptability ratings obtained from this study adequately represent this population, and if so, whether or not these alternative interventions are truly effective and acceptable, specifically with

the most highly distressed patient populations.

Future Directions

Findings that the individual exercise program and individual yoga program were the most highly rated overall suggest that future research may benefit from focusing on these particular alternative treatment options. Future research would likely benefit from investigating how best to implement such programs in an IPC setting.

A significantly larger and more diverse sample would provide a better representation of the general population. Additionally, future research would benefit from an equivalent, or at least proportionate, male to female ratio within the research sample. It will also be important for future research to collect data from sites that serve more socio-demographically diverse populations. One way of addressing this would be to seek participation from urban, suburban, and rural research sites.

Ideally, a large scale randomized controlled would eventually be conducted in the United States to evaluate the effectiveness of a referral program for exercise (or other alternative treatments), similar to the NERS evaluation in Wales. An RCT such as this would also help to provide information regarding retention rates and other obstacles to engagement. This would likely be the most effective way to assess the feasibility of these types of interventions within the American medical system.

Considering that exercise has the most research support and was rated as the most acceptable alternative treatment option, it is especially important to further investigate the feasibility of IPC programs focused on the use of exercise interventions for distressed patients. Potential ideas for this treatment approach include on-site gyms or training facilities, or referral programs that include vouchers or passes to local gyms. For areas with limited resources,

programs might entail the use of exercise trainers and BHCs to help motivate and educate patients about the benefits of exercise, and to develop an outdoor walking, jogging, or biking routine.

The ideal program would be an onsite facility that patients could be referred directly to for an exercise program by their PCP or BHC. The primary obstacle to development of such a program is financial, as the construction and maintenance of a gym or training facility is generally very expensive. Successful development would require significant funding sources. Taking into account the costs and often highly politicized processes for such undertakings within hospital systems, it is likely that development of these types of programs could take years to come to fruition. As such, it is likely that programs that use a voucher or pass system for their patients at a pre-existing local facility would be a much more affordable option for institutions with less financial resources.

In conclusion, this study provides a first glimpse into IPC patients' willingness to utilize alternative treatment options. This study provides a starting point for future research into the use of alternative treatments in IPC settings. Although primary care exercise referral programs exist in other countries, the United States has yet to fully embrace this or other alternative treatment options in its primary care system (Moore et al., 2011; Murphy et al., 2010). Ideally, this study will also serve as a stepping-stone towards developing programs that utilize exercise, yoga, and other alternative treatment options for distressed patients in the United States.

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Appendix A

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Research Consent Form

You are invited to take part in a research survey about treatment options, such as exercise, yoga, meditation, and support groups.

- Your choice to take this survey shows that you agree to take part in this study.
- Taking this survey is voluntary.
- Taking this survey means that you are 18 years of age or older
- Taking this survey will take about 3-5 minutes.
- You will not be asked to provide your name.
- There are no expected risks related to this survey, and the information collected may help to inform future studies or programs.
- Your responses will be kept private and data will be stored in a secure place after it is collected.
- If you have questions or want a copy or summary of this study's results, you can contact the researcher by e-mail at _____.
- Thank you for taking part in this study!
- If you have any questions about your rights as a research participant, you may contact Kevin Lyness, Ph.D., Chair of the Antioch University New England IRB, by phone (603-283-2149) or e-mail (Klynness@antioch.edu), or Melinda Treadwell, Ph.D., Provost, by phone (603-283-2444) or e-mail (Mtreadwell@antioch.edu).

Appendix B

AATOQ (Leandri, 2016)

Activities other than medications and talk therapy and counseling can improve mental health. We want to know more about how patients view these kinds of activities and whether they would participate in them if they were made available to them. Your responses will in no way influence or change the care you are receiving now.

Age: _____

Gender:

- Female
- Male
- Other (please specify): _____

Please rate the likelihood that you would participate in each of the following intervention options. Please circle only one answer per question.

- 1) An **individual exercise program** at home or a gym.

1	2	3	4	5
Definitely Not	Probably Not	Unsure	Probably	Definitely

- 2) A **group exercise class** held at a local recreational facility or gym.

1	2	3	4	5
Definitely Not	Probably Not	Unsure	Probably	Definitely

- 3) An **individual yoga program** at home or a gym. Yoga is a practice that incorporates breathing, meditation, different bodily postures and movements in order to stretch, strengthen, and relax the body.

1	2	3	4	5
Definitely Not	Probably Not	Unsure	Probably	Definitely

4) A **group yoga class** held at the hospital or local recreational facility.

1	2	3	4	5
Definitely Not	Probably Not	Unsure	Probably	Definitely

5) A **guided group meditation/mindfulness class** held at a local health center or recreational facility. Meditation involves training one’s mind to achieve inner peace, relaxation, or another desired mind state. Mindfulness is a specific form of meditation centered on focusing awareness on the present moment.

1	2	3	4	5
Definitely Not	Probably Not	Unsure	Probably	Definitely

6) A **self-management group**, such as Wellness Recovery Action Planning (WRAP). Self-management groups focus on living with distress or mental illness. Such groups use hope, responsibility, education, self-advocacy, and support for group members. These groups often work on identifying group members’ emotional triggers and areas of greatest difficulty, as well.

1	2	3	4	5
Definitely Not	Probably Not	Unsure	Probably	Definitely

7) A **peer-led support group**. Peer-led support groups are groups in which individuals who struggle with depression, anxiety, or other mental health-related difficulties meet on a regular basis to discuss and process challenges that they face, and support one another around such challenges.

1	2	3	4	5
Definitely Not	Probably Not	Unsure	Probably	Definitely

8) What might get in the way of taking part in any or all of the options you've just reviewed?

9) What might help you engage in the options you just reviewed?

10) Please describe any other treatments or activities, besides medication or therapy/counseling, that you have found helpful in reducing your distress now or in the past:
